

under surface of the intestinal tract greatly increase in size at the junction of the abdomen with the cephalothorax. In males and females without ova the exterior of the gut is sparingly supplied with such tissue.

This crab affords a good example of the "commensalism" of Prof. van Beneden. *Nemertes carcinophila* abounds on the hairs bearing ova; and the young of the common mussel and other adventitious growths are common, besides *Sacculina*; Trematode larvæ in the liver and other parts. Various abnormalities from injury also occur. The colours of the males are often remarkably bright, both on the upper and under surfaces of the carapace.

#### Fam. *Corystidæ*.

##### Genus *ATELECYCLUS*, Leach.

*Atelecyclus septemdentatus*, Mont.; Bell, *op. cit.* p. 153.

Frequent in the stomachs of cod.

##### Genus *CORYSTES*, Latreille.

*Corystes cassivelaunus*, Penn.; Bell, *op. cit.* p. 159.

Common on the West Sands after severe storms.

#### Fam. *Pinnotheridæ*.

##### Genus *PINNOTHERES*, Latreille.

*Pinnotheres pisum*, L.; Bell, *op. cit.* p. 121.

Frequent in *Mytilus modiolus*.

[To be continued.]

#### XLI.—Description of a remarkable kind of Air-bladder.

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[Plate XVIII.]

AMONG the specimens of mollusks purchased by the Trustees of the British Museum from the Collection of the late Dr. van Lidth de Jeude there was a preparation, which, on closer inspection, proved to be the air-bladder of a fish. Although there was no indication as regards its origin, I have no doubt that the species from which it had been taken belonged to the Sciaenidæ, a family distinguished by the singular structure of that organ. In some degree the present specimen resembles

the complicated air-bladder of *Collichthys lucida* (see Catal. Fish. ii. p. 313); but its ramifications are shorter, and do not envelope the abdominal viscera.

The organ as a whole is lanceolate, leaf-shaped, thickest along the middle, and gradually becoming very thin towards the margins. Its greatest length is  $5\frac{1}{2}$  inches, and its greatest width 2 inches. In the collapsed state its thickness in the middle is about 3 lines, and may have been about 5 lines when expanded by air. On its visceral surface we distinguish the body of the organ, with a smooth, polished, pearl-white surface; it is elongate, only 7 lines wide in the middle, with its anterior extremity rounded, and with the posterior tapering into a very fine tube. The membrane is thick and stiff, and can be readily divided transversely into strips, each of which corresponds to one of the lateral branches. The body emits on each side fifty-two branches or tubes, communicating by a small opening with the cavity of the body of the air-bladder, and split into secondary and tertiary smaller branches running towards the margins of the organ. All these branches, as seen on the visceral surface, are connected by a cellular tissue, which can be easily severed with the point of a needle. On the dorsal surface nothing is visible of the main branches, but only the fine terminations of the secondary and tertiary branches appear, the whole resembling a thick network of fine fibres, of which the central ones are short, running in a backward direction, whilst the lateral are longer and diverge towards the margins.

Such is the general appearance of the air-bladder on its visceral and dorsal surfaces. However, to understand the ramification of the branches, it is necessary to isolate one or several by dissection. It is then seen that each branch forms a kind of lamina, its ramifications lying in the same plane, and being connected with one another in the same manner as the branches themselves. Each branch bifurcates immediately after its egress from the body into a visceral and dorsal stem. The visceral stem bifurcates twice or thrice again; and its terminal tubes are the longest, reaching the margin of the organ. The dorsal stem is bent over towards the median line of the dorsal surface of the organ, and emits a number of bifurcating branchlets, which are the shorter and thinner the nearer they are to the median line; and their terminations are seen in the middle part of the dorsal surface, as described above.

#### EXPLANATION OF PLATE XVIII.

*Fig. A* Visceral surface.

*Fig. B* Dorsal surface.

*Fig. C* An isolated branch: *a*, dorsal stem: *b*, visceral stem.